DOG2 MEMS-SERIES USB INCLINOMETER

SPECIFICATIONS

- **Dual axis inclinometer**
- **Measurement range ±90°**
- **High resolution**
- **Good accuracy**
- **Fast response time**
- **Easy to use software**

FEATURES

- USB powered
- Digital signal processing includes
  - filter
  - temperature compensation
- 14 bit resolution
- 100 Hz refresh rate
- -40 °C to 85 °C temperature range
- Accuracy typically
  - 0.5° | -40 °C to 85 °C
  - 0.15° | 25 °C

APPLICATIONS

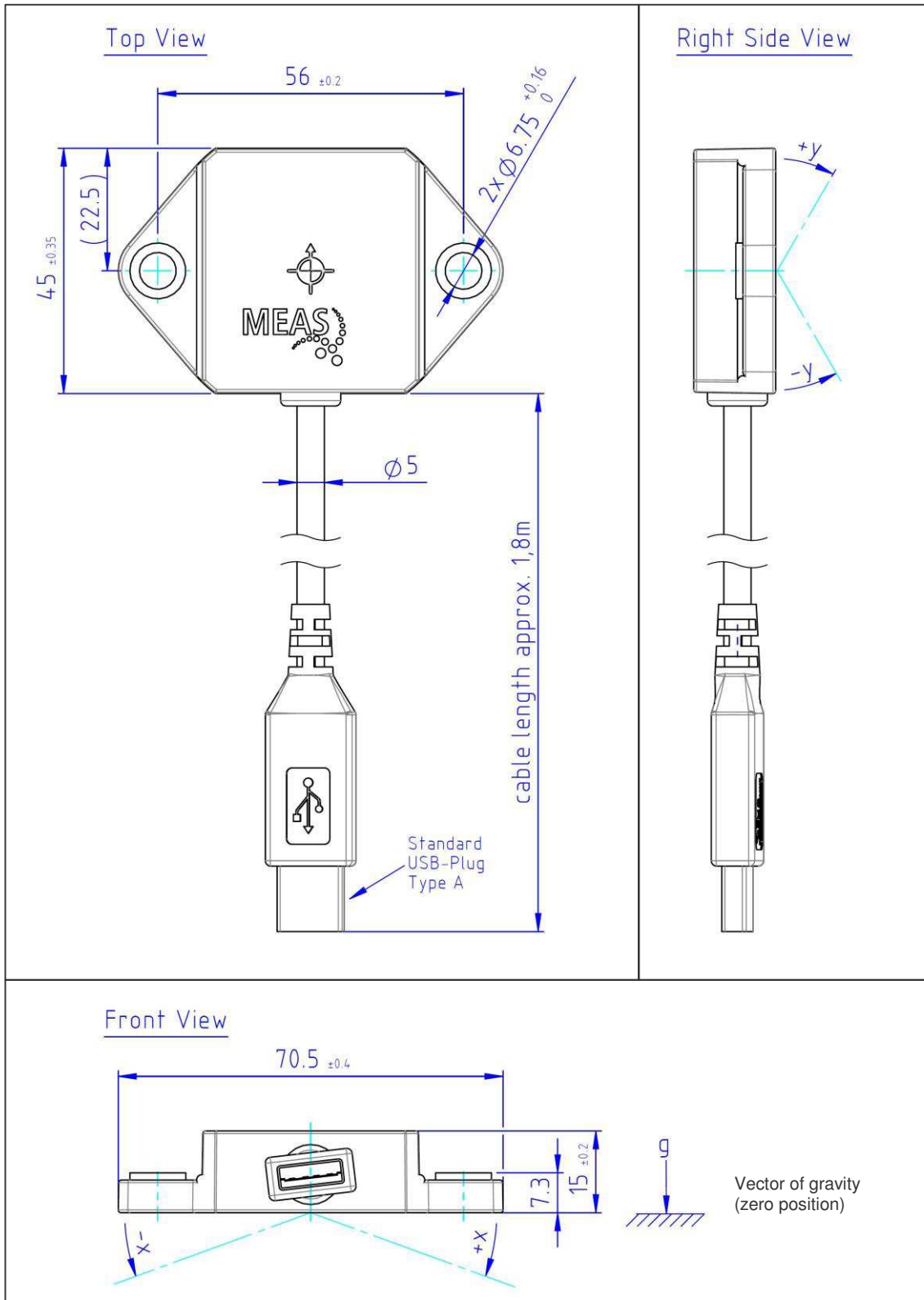- Platform leveling
- Tilt monitoring
- Tilt alarm

The **DOG2 MEMS-Series USB inclinometer** dual axis is well suited for test and measurement purposes.

A fast response time, good accuracy and high resolution are its key features. It uses a digital signal processing including temperature compensation to optimize performance.

The user configurable filter allows to find a good compromise between response time and a stable output in noisy environments, e.g. if vibrations are an issue.

Easy to use software for Microsoft Windows is included. Also the sensor can be accessed using a virtual COM port for easy integration.

Dimensions [mm]

Top View

56 ±0.2

2×Ø6.75 +0.16/0

45 ±0.35

(22.5)

MEAS

Ø5

cable length approx. 1,8m

Standard
USB-Plug
Type A

Right Side View

+y

-y

Front View

70.5 ±0.4

15 ±0.2

7.3

g

Vector of gravity
(zero position)

-x

+x

PARAMETERS

Parameter	Value	Comment
Range	±90°	Dual axis sensor
Accuracy, typ.	0.5°	T= -40 °C to 85 °C
Accuracy, typ.	0.15°	T= 25 °C
Resolution	14 bit	
Refresh rate	100 Hz	Internal processing
Startup time	<1 s	Valid output signal
Supply/excitation voltage	5 V	Powered via USB
Output	X- & Y-angles	Via USB virtual COM port on Host PC
Connector	Standard USB Plug Type A	
Cable	Length of cable approx. 1.8 m outer diameter Ø5 mm	
Operation temperature range	-40 °C to 85 °C	
Storage temperature range	-40 °C to 85 °C	
Weight, typ.	115 g	Including cable & connector
Dimensions	70.5 mm x 45 mm x 15 mm	W x D x H

COMMENTS

A software for an easy use of the sensor is supplied with the hardware. It includes a setup wizard for quick and simple sensor configuration (PC with OS Microsoft Windows XP® or later is required).
This software is also provided via web download, please visit our company website to check for updates.

FUNCTION VIEW
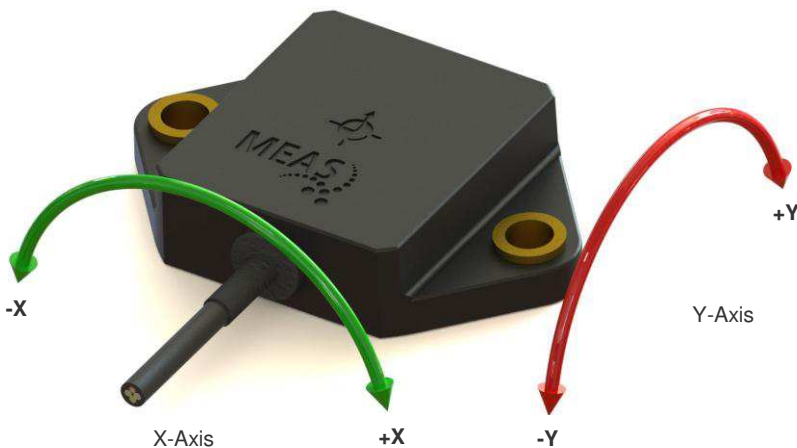
The DOG2-series USB inclinometer is designed for floor mount application.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
G-NSDOG2-021	Dual axis inclinometer, floor mount, range ±90°, USB device incl. Software

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